AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A method for protected transmission of data whose coding is represented by a first~~,~~ transmitted sequence having a predetermined number of on and off values, comprising:

forming a count, from the first transmitted sequence, ~~which represents~~the count representing the predetermined number, by changing a counting direction after each on-value and by incrementing or decrementing the count for each off-value; and

generating error information~~, if~~ when a first final value of the count, which, together with the data, is transmitted as a second~~,~~ coded sequence of the count, differs from a second final value, which~~, like the count,~~ is also formed from the first~~,~~ transmitted sequence.

2. (original) The method as claimed in claim 1, wherein the first, transmitted sequence is structured in a sequence of time slot frames.

3. (original) The method as claimed in claim 2, wherein a time slot frame representing a data item is coded by the predetermined number of on and off values.

4. (original) The method as claimed in claim 2, wherein the sequence of time slot frames is followed by a respectively structured signature frame, which includes the coded sequence of the count.

5. (original) The method as claimed in claim 1, wherein the count assumes periodic values.

6. (original) The method as claimed in claim 5, wherein the periodic values of the count are numerical values in a numerical system.

7. (original) The method as claimed in claim 1, wherein the coding of all the on and off values to be transmitted is carried out in a manner that an on-value is followed by at least one off-value.

8. (original) The method as claimed in claim 1, wherein an on-value is formed by a pulse sequence.

9. (original) The method as claimed in claim 8, wherein the pulse sequence has an even number of pulses and pauses with a same duty ratio.

10. (original) The method as claimed in claim 9, wherein a pulse is associated with a predetermined number of carrier oscillations.

11. (currently amended) A mobile data memory for non-contacting interchange of a sequence of data items with a reader/writer, the mobile data memory comprising a first coding device configured

(a) to transmit data whose coding is represented by a first~~,~~ transmitted sequence having a predetermined number of on and off values;

(b) to form a count, from the first transmitted sequence, ~~which represents~~the count representing the predetermined number of on and off values, by changing a counting direction after each on-value and by incrementing or decrementing the count for each off-value; and

(c) to generate error information, ~~if~~when a first final value of the count, which, together with the data, is transmitted as a second~~,~~ coded sequence of the count, differs from a second final value, which~~, like the count,~~ is also formed from the first~~,~~ transmitted sequence.

12. (currently amended) The mobile data memory as claimed in claim 11, wherein the first coding device comprises:

a cycle counter for forming the count; and

a comparison unit for generating a first error message, ~~if~~ when the first final value of the count differs from the second final value.

13. (currently amended) A reader/writer for non-contacting interchange of a sequence of data items with a mobile data memory, the reader/writer comprising a second coding device configured

(a) to transmit data whose coding is represented by a first~~,~~ transmitted sequence having a predetermined number of on and off values;

(b) to form a count, from the first transmitted sequence, ~~which represents~~the count representing the predetermined number of on and off values, by changing a counting direction after each on-value and by incrementing or decrementing the count for each off-value; and

(c) to generate error information, ~~if~~ when a first final value of the count, which, together with the data, is transmitted as a second~~,~~ coded sequence of the count, differs from a second final value, which~~, like the count,~~ is also formed from the first, transmitted sequence.

14. (currently amended) The reader/writer as claimed in claim 13, wherein the second coding device comprises

a cycle counter for forming the count; and

a comparison unit for generating a second error message, ~~if~~ when the first final value of the count differs from the second final value.

15. (currently amended) An identification system, comprising

at least one mobile data memory; and

a reader/writer;

wherein the mobile data memory and the reader/writer interchange sequences of data via a non-contacting data transmission path;

wherein a coding of the data is represented by a first~~,~~ transmitted sequence having a predetermined number of on and off values; and

wherein at least one of the mobile data memory and the reader/writer comprises:

a cycle counter configured to form a count, from the first transmitted sequence, ~~which represents~~ the count representing the predetermined number of on and off values, by changing a counting direction after each on-value and by incrementing or decrementing the count for each off-value; and

a comparison unit to generate error information, ~~if~~ when a first final value of the count, which, together with the data, is transmitted as a second~~,~~ coded sequence of the count, differs from a second final value, which~~, like the count,~~ is also formed from the first~~,~~ transmitted sequence.

16. (currently amended): The identification system as claimed in claim 15, wherein the identification system is configured to operate in an ISM frequency band on the basis of the ~~ISO/IEC 1443~~ISO/IEC 14443 standard.

17. (original) The identification system as claimed in claim 15, wherein the identification system is configured to operate in an ISM frequency band on the basis of the ISO/IEC 15693 standard.

18. (original) The identification system as claimed in claim 16, wherein the ISM frequency band comprises a 13.56 MHz frequency band.

19. (original) The identification system as claimed in claim 17, wherein the ISM frequency band comprises a 13.56 MHz frequency band.